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NEW SPECIES OF DELTOCEPHALINAE FROM THE AMERICAS (HOMOPTERA: CICADELLIDAE)

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The purpose of this paper is to describe fourteen new deltocephaline leafhoppers from the Americas. With three exceptions, all of the species represent genera which have been comparatively recently revised. I use *Deltocephalus* Burmeister for six new species which occur south of the United States in the same sense as Linnavuori (1959: 98–119) used *Amplicephalus* DeLong. A complete re-evaluation of both *Deltocephalus* and *Amplicephalus* is the subject of a study in progress. The five new species of *Graminella* DeLong described herein can be related to the Nearctic fauna by reference to DeLong and Mohr (1937) and to the Neotropical fauna by reference to Linnavuori (1959: 119–125). Oman (1949: 174–175) lists thirty species for the genus *Polyamia* DeLong; I have studied all of them and take this opportunity to add two new ones. The one new genus, *Quaziptus,* described herein is really not very close to any other genus known to me.

I have intentionally omitted many comparative notes and statements such as "keys to . . . . , but differs by . . . . " in the belief that they would be of little value. In most groups of the leafhoppers, and particularly in the Deltocephalinae, positive specific determinations can be made only by reference to the male genitalia. The male genitalia of all the species described here are illustrated, so recognition of species should present no problems. All of the specimens mentioned in this paper are in the collection of the United States National Museum.

Deltocephalus metcalfi, new species

(Figs. 1–4)

Length: 3.0 mm.

Structure: Crown in dorsal view rather sharply angular, median length one and a fourth times as long as narrowest width between eyes. Forewing with apical cells short, central preapical cell usually undivided, at times with a few extra irregular crossveins in some of the preapical cells.

Coloration: Venter, legs, and face as in *D. buysi* n. sp. Crown sordid stramineous with a pair of small elongate dark brown spots at apex and a pair of large, round, dark brown to black spots, one of which occurs behind each ocellus, on anterior portion of disc. Pronotum sordid stramineous to light brown with or without five paler, weakly defined, longitudinal stripes. Scutellum light brown, variably touched with dark brown. Forewings light brown hyaline, veins pale stramineous, with cells lightly and variably infuscated.

Male Genitalia: Aedeagus in lateral view quite uniform in stoutness except at slightly recurved apex which has a small but distinct dorsal notch and a sharp ventral extension (Fig. 1). Gonopore at base of ventral extension (Fig. 2). Aedeagus in ventral view rounded basally and tapered toward apex (Fig. 3). Distal portion of style with mesal lobe long, stout, and excavated on mesal two-thirds (Fig. 4).

Female Genitalia: Female unknown.

Types: Holotype (USNM Type No. 67196) and two paratype males, Cuaro., Michoacán, Mexico, 31 August 1938, L. J. Lipovsky. I was not able to locate "Cuaro." in Michoacán. There are four localities between Guadalajara and Morelia on or near Mexican Highway 15 which have this word as part of their name; these are: Lake Camecuaro, Tangancicuaro, Capacuaro, and Pátzcuaro.

Remarks: The coloration and markings of *metcalfi* are similar to several species of *Graminella*, but the closed inner preapical cell places the species in *Deltocephalus*. The male genitalia, particularly the aedeagus, are highly distinctive. The species is named for the late Dr. Z. P. Metcalf whose monumental catalogues are known to all workers in the Homoptera.

Deltocephalus youngi, new species

(Figs. 5–8)

Length: 3.5–4.0 mm.

Structure: Crown in dorsal view rather bluntly angular, median length about one-fifth shorter than narrowest width between eyes. Forewing with central preapical cell divided by a cross vein.

Coloration: Venter and legs stramineous to pale brown and immaculate to lightly touched with darker shades. Face with ground color light brown, only clypellus and clypeus marked with dark brown which appears grossly as a dark, irregular, longitudinal band on midline of face. Crown pale brown to stramineous with three pairs of small dark

anterior marginal spots, the outermost spot on either side occurs behind an ocellus. Pronotum pale brown with five more or less distinct paler, narrow, longitudinal stripes. Scutellum pale brown without definite markings. Forewings light brown hyaline, veins sordid whitish, with cells lightly infuscated at margins.

Male Genitalia: Aedeagus in lateral view stout basally but abruptly narrowed in distal half, shaft serrated dorsally and preapically, and terminating with an arrowhead-like apex (Fig. 5). Gonopore dorsal at slightly notched apex (Fig. 6). Aedeagus in ventral view rounded basally with shaft expanded preapically (Fig. 8). Distal portion of style with mesal lobe bent laterally, rugose and enlarged apically (Fig. 7).

Female Genitalia: Posterior margin of pregenital sternum indented mesally with a large blunt tooth at center.

Types: Holotype (USNM Type No. 67199) male, allotype female, and two paratype females, Depto. Escuintla, Guatemala, 500–1,000 ft, 5 April 1950, light trap, J. M. Brennan.

Remarks: The darkly colored central portion of the face will distinguish *youngi* from all other Neotropical species in the genus except *pallus* n. sp. The unique aedeagus and styles will separate *youngi* from all other members of *Deltocephalus*. The species is named for Dr. D. A. Young who is one of the world's foremost authorities on leafhopper classification.

Deltocephalus buysi, new species

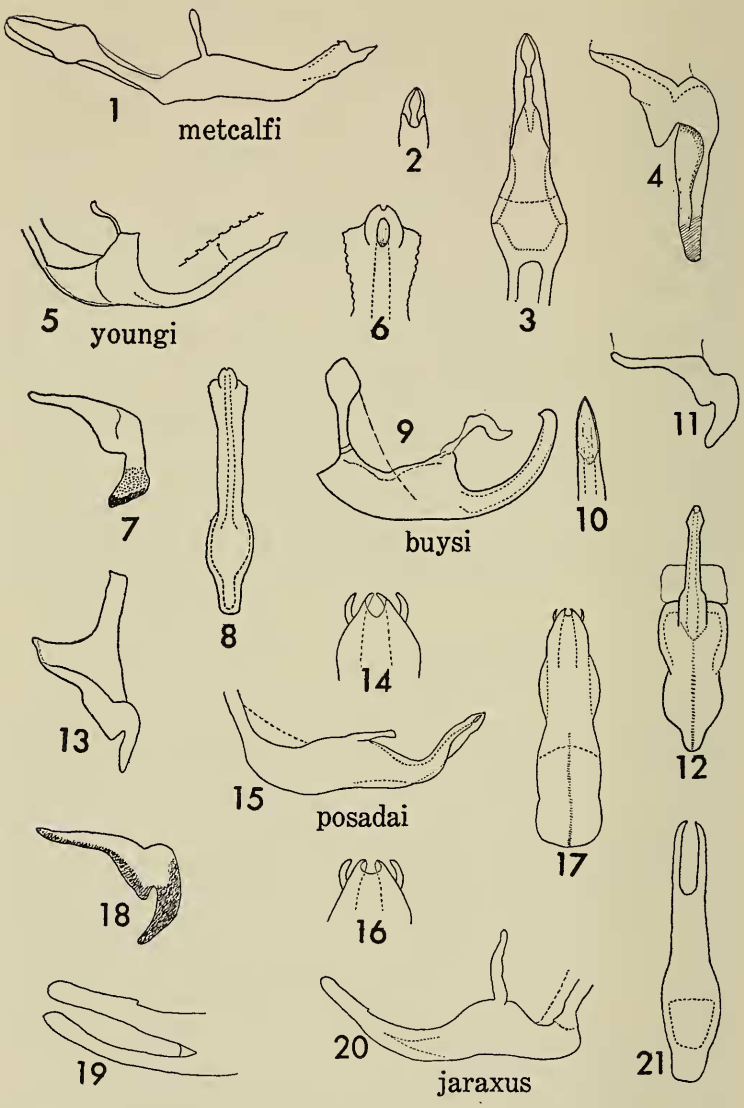
(Figs. 9–12)

Length: 3.5 mm.

Structure: Crown in dorsal view rather bluntly angular, median length two fifths shorter than narrowest width between eyes. Forewing with central preapical cell divided by a crossvein.

Coloration: Venter and legs basically light brown but variably marked with darker areas. Face with ground color light brown to sordid stramineous, heavily marked with dark brown especially on sutures. Usual dark clypeal arcs present. Crown light brown, anterior margin paler with a pair of small dark brown apical spots and a pair of narrow crescentic spots, one of which occurs behind each ocellus. Pronotum light brown with five more or less distinct pale, narrow, longitudinal stripes. Scutellum light brown without distinct markings. Forewings light brown hyaline with veins pale, very sparse infuscation at margins of some cells.

Male Genitalia: Aedeagus in lateral view moderately elongated, stout basally with distinct heel, sharply narrowed, and gradually upturned distally with a small proximal beak at apex (Fig. 9). Gonopore ventral at unnotched apex (Fig. 10). Aedeagus in ventral view with distinct heel, mesal indentations in basal portion, and a sharp narrowing of distal portion (Fig. 12). Connective exceedingly short (Fig. 9). Distal portion of style undistinguished (Fig. 11).



Figs. 1–21.—*Deltocephalus metcalfi*, n. sp.: 1, aedeagus and connective laterally; 2, aedeagal apex dorsally; 3, aedeagus ventrally; 4, distal portion of style ventrally. *Deltocephalus youngi*, n. sp.: 5, aedeagus laterally; 6, aedeagal apex dorsally; 7, distal portion of style ventrally; 8, aedeagus ventrally. *Deltocephalus buysi*, n. sp.: 9, aedeagus

Female Genitalia: Female unknown.

Types: Holotype (USNM Type No. 67197) and two paratype males, Punta Gorda, British Honduras, August, 1934. Specimens originally in the John L. Buys Collection recently acquired by the U. S. National Museum.

Remarks: The coloration and markings are not distinctive, but the male genitalia readily distinguish *buysi* from all other members of the genus. The species is named for the late Dr. John L. Buys whose doctoral thesis (1924, Cornell Univ. Agr. Exp. Sta., Memoir 80) was one of the earliest studies on the importance of the concealed male genitalia in leafhopper classification.

Deltocephalus posadai, new species

(Figs. 13–17)

Length: 3.0–3.5 mm.

Structure: Crown in dorsal view bluntly angular, median length two-fifths shorter than narrowest width between eyes. Forewing with central preapical cell not divided.

Coloration: Venter largely black but variably touched with sordid yellow. Legs sordid yellow variably touched with black or dark brown. Face sordid yellow heavily marked with black on sutures and clypeus. Usual dark clypeal arcs present. Crown sordid yellow with six black apical spots which may be variably fused and appear as a band. Additional ill-defined dark markings on coronal disc present or absent. Pronotum sordid stramineous to brownish with or without five more or less distinct pale narrow longitudinal stripes. Forewings light brown hyaline with veins pale, margins of cells infuscated.

Male Genitalia: Aedeagus in lateral view moderately elongated, narrowed and slightly upcurved on distal one-third, a distinct fin present on shaft (Fig. 15). Gonopore at extreme aedeagal apex (Figs. 14 & 16). Aedeagus in ventral view with fins appearing as lateral bulges, distinct tooth on either side of notched apex (Fig. 17). Style undistinguished (Fig. 13).

Female Genitalia: Posterior margin of pregenital sternum concave.

Types: Holotype (USNM Type No. 67198) and three paratype males, Usme, Cundinamarca, Colombia, 19 April 1956, elevation 3,120 ft, L. Posada, on *Solanum tuberosum andigena.* Allotype female, Funza, Cundinamarca, Colombia, 12 April 1955, elevation 2,550 ft, L. Posada, on *Solanum tuberosum andigena.* Additional female paratype with same

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and connective laterally; 10, aedeagal apex posteriorly; 11, distal portion of style ventrally; 12, aedeagus ventrally. *Deltocephalus posadai,* n. sp.: 13, style ventrally; 14, aedeagal apex dorsally; 15, aedeagus laterally; 16, aedeagal apex ventrally; 17, aedeagus ventrally. *Deltocephalus jaraxus,* n. sp.: 18, distal portion of style ventrally; 19, aedeagal apex ventrolaterally; 20, aedeagus laterally; 21, aedeagus ventrally.

data except Duitama, Boyacá, Colombia, 12 April 1956, elevation 2,590 ft.

Remarks: The coloration and markings are highly variable in *posadai.* Specific determination depends almost entirely upon the unique aedeagus. The species is named for the collector, Mr. L. Posada.

Deltocephalus jaraxus, new species
(Figs. 18–21)

Length: 4.0 mm.

Structure: Crown in dorsal view bluntly angular, median length about a fourth shorter than narrowest width between eyes. Forewing with central preapical cell divided by a crossvein.

Coloration: Venter, legs, and face as in *buysi* n. sp. Crown light brown, four small dark brown spots on anterior margin, a transverse brown band between the anterior margins of the eyes, band is widest and broken at middle. Pronotum light brown with five narrow pale longitudinal stripes. Scutellum light brown touched with dark brown. Forewings brown hyaline, veins pale stramineous, cells heavily but variably infuscated.

Male Genitalia: Aedeagus in lateral view moderately elongated, stoutest at middle with a distinct basal heel, and gradually narrowed and upturned distally with a preapical dorsal notch (Fig. 20). Gonopore at base of deeply cleft aedeagal apex (Fig. 19). Aedeagus in ventral view with basal heel and apical cleft distinct (Fig. 21). Distal portion of style with mesal lobe curved laterad (Fig. 18).

Female Genitalia: Female unknown.

Types: Holotype (USNM Type No. 67200) male, Boca del Rio, Veracruz, Mexico, 16 July 1964, Ryckman, Christianson, and Lee. Paratype male, east of Mazatlán, Sinaloa, Mexico, 15 August 1954, Ryckman, Christianson, and Lee.

Remarks: Though the coloration and markings are useful, recognition of *jaraxus* is dependent upon the unique male genital structures.

Deltocephalus pallus, new species
(Figs. 44–48)

Length: 3.2 mm.

Structure: Crown in dorsal view bluntly angular, median length approximately a fourth shorter than narrowest width between eyes. Forewing with central preapical cell divided by a crossvein.

Coloration: Venter and legs uniformly light brown. Face marked as in *youngi* n. sp. Crown light brown with a pair of minute dark apical spots and a weakly defined elongate mark behind each ocellus. Pronotum light brown and without definite markings. Scutellum yellowish, unmarked. Forewings light brown hyaline with veins whitish.

Male Genitalia: Aedeagus in lateral view moderately stout and abrupt-

ly upturned, a small tooth on venter of shaft and preapically on bulbous terminus (Figs. 44 & 48). Gonopore preapical on venter of shaft (Fig. 45). Connective short (Figs. 44 & 46). Style undistinguished (Fig. 47).

Female Genitalia: Female unknown.

Types: Holotype (USNM Type No. 67201) male and one paratype male, Punta Gorda, British Honduras, February, 1935. Specimens originally in John L. Buys Collection recently acquired by the U. S. National Museum.

Remarks: On the basis of male genitalia, *pallus* is closely related to the well-known and widely distributed *D. flavicosta* (Stål). *D. pallus* is a comparatively pale species while *flavicosta* is much darker. The pale brown ground color with the darkly colored central portion of the face makes *pallus* and *youngi* n. sp. appear externally much alike; they are easily separated, however, on the basis of male genital structures.

Graminella lambda, new species

(Figs. 22–24)

Length: 3.0–3.5 mm.

Structure: Crown in dorsal view bluntly angular, median length approximately a fourth shorter than narrowest width between eyes. Forewing with central preapical cell undivided.

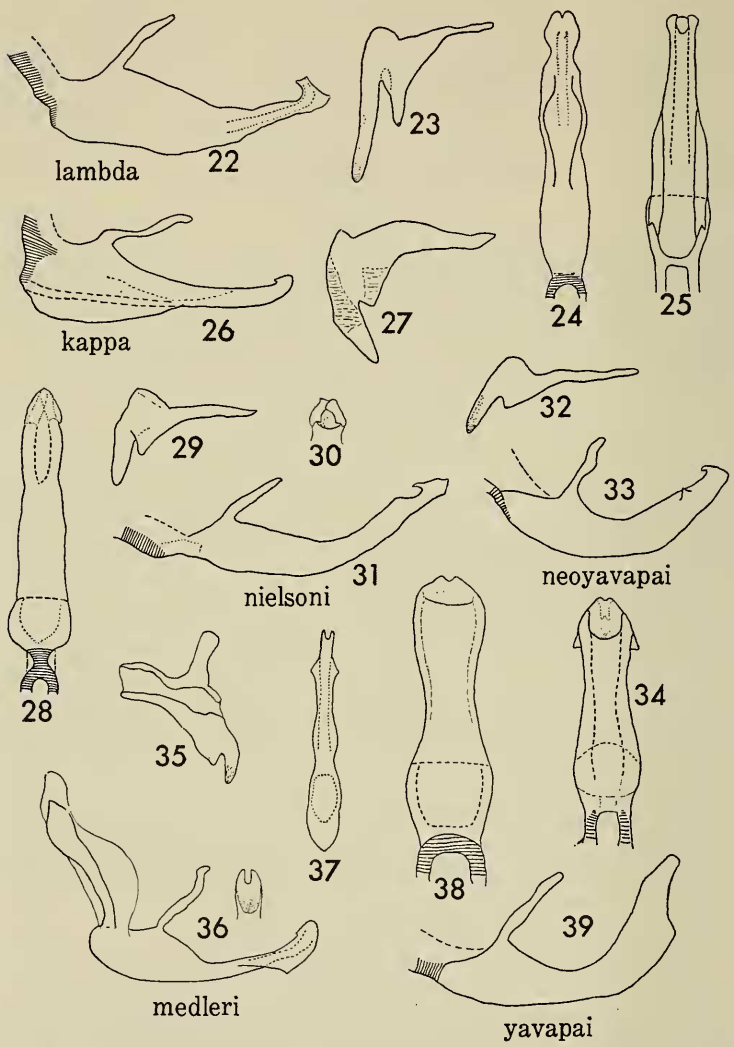
Coloration: Venter of abdomen and thorax largely dark brown to black. Legs sordid stramineous, lightly touched with brown. Face yellow, irregularly marked with brown as arcs on clypeus and as lines on sutures. Crown as in *inca* n. sp. Pronotum sordid stramineous to brownish with or without four vague longitudinal brown stripes. Scutellum yellow, usually unmarked. Forewings basically sordid white to pale brown hyaline, often, but not always, touched with brown particularly at first crossvein between sectors and at claval apices.

Male Genitalia: Aedeagus in lateral view stoutest basally, narrowing to sharply recurved truncate apex (Fig. 22). Gonopore at apex. Aedeagus in ventral view quite uniformly narrow, laterally indented preapically, and notched apically (Fig. 24). Both mesal and lateral lobes of style comparatively long (Fig. 23).

Female Genitalia: Posterior margin of pregenital sternum broadly indented with a wide, blunt tooth at center.

Types: Holotype (USNM Type No. 67202) male, allotype female, and seventeen paratypes, Lake Amatillan, Guatemala, 4,000 ft, 18 March 1950, J. M. Brennan. Additional paratypes as follows: one, Tampico, Mexico, 29 December 1908; one, Depto. Escuintla, Guatemala, 4 May 1950, J. M. Brennan; one, 12 km west of Olanchito, Honduras, 22 June 1949, E. C. Becker; and one, Kenscoff, Haiti, 18 January 1948, G. N. Wolcott.

Remarks: G. lambda can be distinguished with certainty only by the unique male genitalia.



Figs. 22–39.—*Graminella lambda,* n. sp.: 22, aedeagus laterally; 23, distal portion of style ventrally; 24, aedeagus ventrally. *Graminella kappa,* n. sp.: 25, aedeagus ventrally; 26, aedeagus laterally; 27, distal portion of style ventrally. *Graminella nielsoni,* n. sp.: 28, aedeagus ventrally; 29, distal portion of style ventrally; 30, aedeagal apex dorsally; 31, aedeagus laterally. *Polyamia neoyavapai,* n. sp.: 32, distal portion of style ventrally; 33, aedeagus laterally; 34, aedeagus ventrally. *Grami-*

Graminella kappa, new species

(Figs. 25–27)

Length: 3.4–3.7 mm.

Structure: Crown in dorsal view bluntly angular, median length approximately a fourth shorter than narrowest width between eyes. Forewing with central preapical cell undivided.

Coloration: Identical in all respects to *inca* n. sp. except for differences in the longitudinal paired stripes on the face. In *inca* the stripes are unbroken and uniformly dark, while in *kappa* the uppermost portion of each stripe is almost always separated giving the appearance of two large irregular spots. These spots are usually darker than the other facial markings.

Male Genitalia: Aedeagus in lateral view nearly straight with shaft narrowed, a slight notch dorsally near apex, and a finlike expansion basally (Fig. 26). Aedeagus in ventral view moderately slender, narrowing distally, with gonopore at apex (Fig. 25). Distal portion of style undistinguished (Fig. 27).

Female Genitalia: Posterior margin of pregenital sternum broadly indented with a wide, blunt tooth at center.

Types: Holotype (USNM Type No. 67203) male, allotype female, and eight paratypes, Punta Gorda, British Honduras, August 1934. Additional paratypes as follows: Three, Rio Temas, British Honduras, August, 1937, A. J. White; one LaLola, Costa Rica, 29 April 1957, M. J. Stelzer; sixteen, Depto. Escuintla, Guatemala, 5 April 1950, 1,000 ft, J. M. Brennan; one, Olanchito, Honduras, 30 July 1949, E. C. Becker.

Remarks: The coloration and markings of *kappa* are essentially identical to those of *G. striatella* Linnavuori. However, the male genitalia are unique.

Graminella nielsoni, new species

(Figs. 28–31)

Length: 3.75 mm.

Structure: Crown in dorsal view bluntly angular, median length one-fifth shorter than narrowest width between eyes. Forewing with central preapical cell undivided.

Coloration: Uniformly stramineous except for sparse embrowning on abdomen and four minute spots on anterior margin of crown. Median pair of marginal spots pale brown, lateral pair dark brown. Ocelli black. Pronotum, scutellum, and forewings without definite markings.

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nella medleri, n. sp.: 35, style ventrally; 36, aedeagus and connective laterally with posterior view of aedeagal apex above; 37, aedeagus ventrally. *Polyamia yavapai* (Tuthill): 38, aedeagus ventrally; 39, aedeagus laterally.

Male Genitalia: Aedeagus in lateral view of rather uniform stoutness, only slightly recurved distally, and terminating with a basally directed beak (Fig. 31). Gonopore apical (Fig. 30). Aedeagus in ventral view elongated and moderately stout (Fig. 28). Apex of style undistinguished (Fig. 29).

Female Genitalia: Female unknown.

Types: Holotype (USNM Type No. 67204) male, Huachuca, Arizona, U.S.A., 30 July 1935, E. D. Ball. Paratype male (badly broken), 53 miles south of Marathon, Texas, U.S.A., 23 June 1947, R. H. Beamer.

Remarks: The coloration and markings of *nielsoni* are similar to those of the rare *G. virginiana* DeLong and Mohr. The male genitalia are very different in the two species. The geographical distribution is also very different; *G. virginiana* is known only from Cape Charles, Virginia, while *nielsoni* is known only from Arizona and Texas. The species is named for Dr. M. W. Nielson whose works have clarified the species of several difficult leafhopper genera.

Graminella medleri, new species

(Figs. 35–37)

Length: 3.75 mm.

Structure: Crown in dorsal view bluntly angular, median length approximately one-fourth shorter than narrowest width between eyes. Forewing with central preapical cell divided by a crossvein.

Coloration: Indistinguishable from *inca* n. sp. except for intensity of facial markings. The paired longitudinal facial stripes are barely discernible in *medleri* and are very distinct in *inca.*

Male Genitalia: Aedeagus in lateral view rounded basally with shaft narrowing at middle, distal portion with a ventral fin, and a dorsal preapical notch (Fig. 36). Gonopore on venter of shaft (Fig. 36). Aedeagus in ventral view almost uniformly narrow with preapical fins and apical notch (Fig. 37). Style undistinguished (Fig. 35).

Female Genitalia: Female unknown.

Types: Holotype (USNM Type No. 67205) male, Rio Grande, British Honduras, June, 1932, J. J. White.

Remarks: G. medleri is very close to *inca* in coloration. The two species are readily separable on the basis of male genitalia, and by the central preapical cell of the forewing which is divided in *medleri* and undivided in *inca.* The species is named for Dr. J. T. Medler who has published several fine generic revisions of American leafhoppers.

Graminella inca, new species

(Figs. 55–57)

Length: 3.3 mm.

Structure: Crown in dorsal view bluntly angular, median length one-fourth shorter than narrowest width between eyes. Forewing with central preapical cell undivided.

Coloration: Venter of abdomen and thorax dark brown. Legs sordid stramineous, irregularly touched with brown. Face yellow with a pair of solid dark brown longitudinal stripes running from dorsal margin and converging at apex of clypellus. Irregular dark brown spot under each eye converging distally on each side with longitudinal stripe. Crown sordid yellow with two pairs of dark brown or black anterior marginal spots. The central apical pair are minute while the lateral pair are very large. Pronotum sordid yellow with a wide light brown transverse band on posterior margin and an irregular embrowning on anterior margin. Scutellum sordid yellow without definite markings. Forewings brown hyaline with veins sharply distinct due to sordid yellow coloration.

Male Genitalia: Aedeagus in lateral view with large mesal fin and a ventral extension at extreme upturned apex (Fig. 57). Gonopore apical. Aedeagus in ventral view rounded basally, narrowed distally and with a pair of large lateral fins (Fig. 55). Distal portion of style undistinguished (Fig. 56).

Female Genitalia: Female unknown.

Types: Holotype (USNM Type No. 67206) male, Cojimies, Manabi, Ecuador, 12 August 1949, W. Clark-Macintyre.

Remarks: While the habitus and coloration are typical of several species of *Graminella, inca* presents the most peculiar and distinctive aedeagus possessed by any member of the genus. Also see remarks under *Graminella medleri,* n. sp.

Polyamia neoyavapai, new species

(Figs. 32–34)

Length: 3.0–3.6 mm.

Structure: Crown in dorsal view comparatively sharply angular, median length equal to narrowest width between eyes. Forewing with many extra crossveins except in brachial cell, anterior costal area, and outer discal cell.

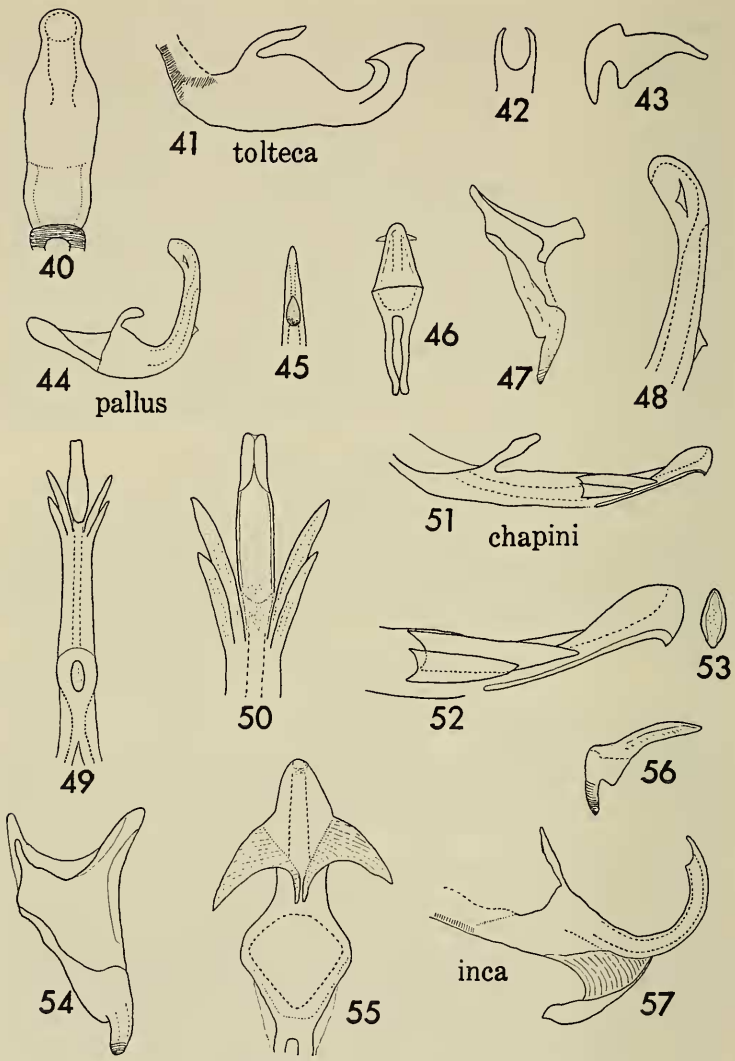
Coloration: Indistinguishable from *P. yavapai* (Tuthill) with ground color yellowish brown, often washed with pink or red.

Male Genitalia: Aedeagus in lateral view moderately stout, gradually upturned distally, and with both a dorsal preapical tooth and a proximal beak at apex (Fig. 33). Aedeagus in ventral view with large gonopore, paired preapical teeth, and moderately elongate shape (Fig. 34). Distal portion of style undistinguished (Fig. 32).

Female Genitalia: Posterior margin of pregenital sternum slightly indented mesally and with a broad, blunt tooth at center.

Types: Holotype (USNM Type No. 67207) male, allotype female, and twenty-one paratypes, foothills Huachuca Mountains, Arizona, U.S.A., 10 October 1937, P. W. Oman.

Remarks: P. neoyavapai and *P. yavapai* (Tuthill) are grossly inseparable, although *yavapai* does tend to have a few less extra crossveins in the forewing. The species are separated easily on the basis of male



Figs. 40–57.—*Polyamia tolteca,* n. sp.: 40, aedeagus ventrally; 41, aedeagus laterally; 42, aedeagal apex posteriorly; 43, distal portion of style ventrally. *Deltocephalus pallus,* n. sp.: 44, aedeagus and connective laterally; 45, aedeagal apex posteriorly; 46, aedeagus and connective ventrally; 47, style ventrally; 48, distal portion of aedeagus laterally. *Quaziptus chapini,* n. g. and n. sp.: 49, aedeagus dorsally; 50, distal

genitalia; figures 38 and 39 show the ventral and lateral views of the previously unillustrated aedeagus of *yavapai,* and figures 34 and 33 show the same structure of *neoyavapai.*

Polyamia tolteca, new species

(Figs. 40–43)

Length: 2.4–2.6 mm.

Structure: Crown in dorsal view bluntly angular, median length approximately one-fourth shorter than narrowest width between eyes. Forewing with extra crossveins in clavus only and with central preapical cell divided by a crossvein.

Coloration: Venter, legs, and face mainly black with anterior tibiae and distal portion of anterior femora stramineous. Some additional ill-defined stramineous touches on other legs as well. Crown stramineous with four small brown spots on anterior margin (in holotype, the lateral pair of spots are obsolete) and two irregular triangular black marks between anterior margins of eyes. These markings could be interpreted as an irregular transverse band between the anterior margins of the eyes which is widest and broken at the center of the crown and broken often near each eye. Pronotum stramineous with a few irregular dark brown areas near anterior margin. Scutellum stramineous, marked with brown. Forewings sordid milky-white hyaline with many cells heavily infuscated at margins.

Male Genitalia: Aedeagus in lateral view robust, upturned distally, and expanded proximally and distally at apex (Fig. 41). Gonopore at cleft apex (Fig. 42). Aedeagus in ventral view bottle-shaped (Fig. 40). Mesal and lateral lobes of style as illustrated (Fig. 43).

Female Genitalia: Posterior margin of pregenital sternum strongly indented with base of indentation transverse.

Types: Holotype (USNM Type No. 67208) male and allotype female, 20 miles west of Morelia, Michoacán, Mexico, 19 July 1955, R. B. and J. M. Selander.

Remarks: The markings on the crown in *tolteca* are quite similar to *P. weedi* (Van Duzee), a common eastern North American species, as well as to several other species found in the United States. Within a restricted area of Mexico, the coloration of *tolteca* might be diagnostic for the species. However, the male genitalia are unique and readily distinguish *tolteca* from all other species of *Polyamia.*

Quaziptus, new genus

Type-species *Quaziptus chapini,* new species.

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portion of aedeagus dorsally; 51, aedeagus laterally; 52, distal portion of aedeagus laterally; 53, aedeagal apex posteriorly; 54, style ventrally. *Graminella inca,* n. sp.: 55, aedeagus ventrally; 56, distal portion of style ventrally; 57, aedeagus laterally.

Head wider than pronotum, anterior margin rounded to front; antennae long, three-fourths as long as length of body; clypeal suture distinct, face not strongly convex; crown flat, median length slightly exceeding length next to eye; forewings subhyaline, veins distinct, two cross veins between sectors. Male genitalia: Aedeagus moderately slender, elongated, with preapical processes; distal portions of aedeagus weakly united to basal portion; connective closed Y-shaped and solidly fused with aedeagus; style undistinguished. Color stramineous with darker markings.

Quaziptus resembles somewhat members of the North American genus *Commellus* Osborn and Ball. However, this resemblance is superficial. Its relationship is seemingly closer to species of *Psammotettix* Haupt and other deltocephaline leafhoppers having the closed Y-shaped connective. The weakly united distal portion of the aedeagus is unique among leafhoppers known to me.

Quaziptus chapini, new species

(Figs. 49–54)

Length: 3.2 mm.

Structure: Crown in dorsal view bluntly angular, median length equal to narrowest width between eyes. Forewing with central preapical cell undivided.

Coloration: Ground color stramineous and marked with brown as follows: irregular spots on legs and venter of thorax; on facial sutures; usual clypeal arcs; four highly irregular anterior marginal spots on crown (dark brown to black), the apical pair tri-radial, and the lateral pair irregularly crescent-shaped, one around each ocellus; a pair of longitudinal dorsal stripes (pale brown) extending from lateral marginal spots posteriorly across pronotum and scutellum, each dorsal stripe flanked laterally on the pronotum by two weakly defined stripes of the same hue (making a total of six pronotal stripes); cells of forewings infuscated, most heavily in claval areas.

Male Genitalia: Aedeagus in lateral view slender, transverse, with two lateral preapical processes, and enlarged apex with ventral beak (Figs. 51 & 52). Gonopore at extreme apex (Fig. 53). Aedeagus in dorsal view slender, four anteriorly directed preapical processes (inner pair longer), and the extreme distal portion of shaft weakly united at base of preapical processes (Figs. 49 & 50). Style undistinguished (Fig. 54).

Female Genitalia: Female unknown.

Type: Holotype (USNM Type No. 67209) male, 3,300 meters above Guasca, Cundinamarca, Colombia, 8 March 1942, E. A. Chapin.

Remarks: This singular species is named for the collector, Dr. E. A. Chapin, former curator of entomology at the United States National Museum.

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